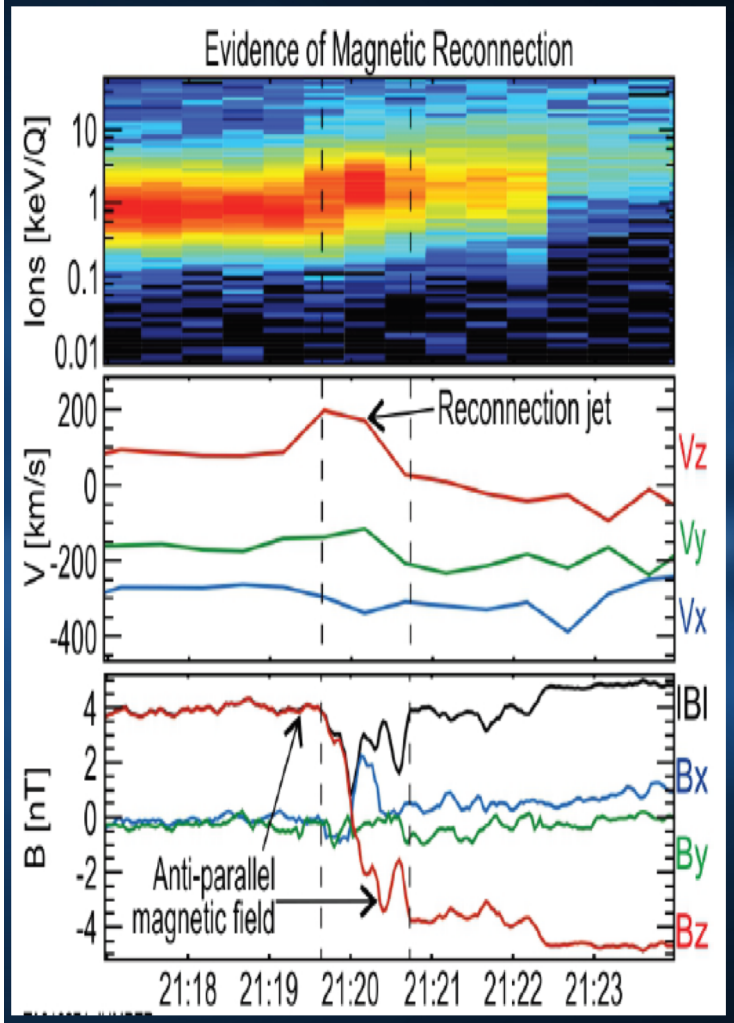
# Magnetic Reconnection at Jupiter's Outer Magnetospheric Boundary

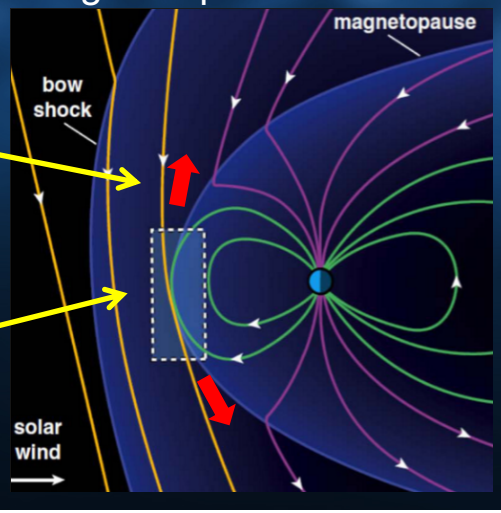
Juno JADE and MAG observations




Ebert et al., 2017, GRL

**Observations by the Juno spacecraft at Jupiter reveal an unexpected reconnection in the outer magnetosphere.**

- In the Earth's magnetosphere, the reconfiguration of magnetic fields at the outer edge, called reconnection, drives dynamic processes.
- Previously, it was thought that reconnection would be rare at Jupiter due to the solar wind conditions farther from Sun, but observations of the reconnection jet and anti-parallel magnetic fields by Juno's Jovian Auroral Distributions Experiment (JADE) and Magnetometer (MAG) instruments, indicates that reconnection is occurring at Jupiter, and provides a path for solar wind influence on Jupiter's magnetospheric dynamics.
- These observations provide an important comparison with Earth observations by NASA's Magnetospheric Multiscale Mission (MMS).

Reconnection jet

Anti-parallel magnetic fields